

REMARKS

Claims 2-9, 11-21, 23-36 remain in the application. Claims 9, 21, 26-28 and 36 have been amended.

The Examiner has objected to the Abstract of the Disclosure because it contains the word "means" therein. Applicants have amended the Abstract to eliminate "means". Thus, Applicants respectfully request that the Examiner withdraw this objection.

1. The Examiner has rejected claims 2, 3, 5-8, 23-26, 28-30 and 32-35 under 35 USC §103(a) as being unpatentable over Zumbuhl in view of Wetten et al and Gutmann. Applicants respectfully traverse the Examiner on this ground of rejection.

The claims of the instant application and particularly independent claims 26 and 28 are directed to a closure in combination with a container. The container is claimed as having a neck with a lip defining an opening therein and a seal covering the opening. The closure has a top with an interior surface with a skirt depending from the top. The skirt is provided with an interior surface with at least one thread affixed thereto for engagement with the container. A liner is provided to fit firmly within the closure and abuts the top interior surface of the closure. The liner has a resting thickness at ambient temperature and compression conditions and is made from a material capable of being compressed to a thickness less than the resting thickness and is also capable of recovering to a recovery thickness sufficient to allow the liner to maintain a positive pressure against the closure and against the seal when the closure is affixed to the container. The instant claimed invention is specifically directed to a seal between a closure and a container which is subjected to sterilizing conditions using a retort process. That is, the problem which the instant invention solves is the preventing of

seal separation or leakage of a sealed container when the sealed container is subjected to the temperature and pressure deviations of a retort process.

The Zumbuhl reference is directed to a tab construction for closures having tamper indicating rings. Zumbuhl teaches a closure having a sealing gasket 19 which abuts an interior surface of the top of the closure. However, the gasket of Zumbuhl is not remotely related to the liner of the instant invention, as now claimed, which is capable of undergoing pressure and temperature changes during sterilizing conditions in a retort process. Moreover, Zumbuhl does not teach nor remotely suggest a seal covering an opening in the neck of a container. Specifically, Zumbuhl is not remotely related to a closure in combination with a container which is going to be subjected to sterilization conditions using a retort process. Zumbuhl is directed to a tab construction for closures having tamper-indicating rings.

Wetten et al is directed to gaskets made from polyolefins and are noted as being useful for sealing a food and liquid container. Wetten et al is silent as to any construction of a closure and a container incorporating the polyolefin gaskets. Moreover, Wetten et al is silent as to the structure of a closure and container which is useful for sterilization in a retort process.

Gutmann teaches a bottle closure and a container wherein the closure includes a sealing gasket 11 having a center point 14 engagable with a two-ply disc for sealing the opening in the neck of a container. The two-ply disc is taught as a facing disc 16 of metal foil bonded to a paper based disc 15 which is in engagement with the center point 14 of the sealing gasket 11 when in a closed condition. Clearly the paper base disc

with the metal foil underside is not capable of being subjected to sterilization conditions in a retort process.

In rejecting the claims under USC §103, the Examiner bears the initial burden of presenting a *prima facie* case of obviousness. See *In re Rijckaert*, 9 F3d 1531 28 USPQ 2d 1955 (Fed.Cir. 1993). And, the test for obviousness is what the combined teachings of the references would have suggested to one of ordinary skill in the art. See *Cable Electric Products, Inc. v. Genmark, Inc.*, 77 F2d 1015, 226 USPQ 881 (Fed.Cir 1985). Here, the Examiner has not presented a *prima facie* case of obviousness as to any of the rejected claims. Merely knowing that the gasket of Wetten et al is used in sealing food products does not in any way suggest the location and positioning of the claimed liner in Gutmann or Zumbuhl in obviating the instant claimed invention. Moreover, obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention absent some teaching, suggestion, or incentive supporting the combination. See *In re Geiger*, 815 F2d 682 2 USPQ 2d 1276, 1278.

In the instant invention, as now claimed, the unique combination of closure and container is for use in a retort process where the contents of the container are subjected to sterilization conditions. None of the references are remotely related to the problem to which the instant invention solves. The Examiner alleges that it would have been obvious to one of ordinary skill in the art at the time of the invention to apply the teachings of a liner material capable of compressing and recovering as a result of high temperature and/or high pressure in the associated container, since it is within the skill of the worker in the art to select a known material based on its suitability for its intended

use. However, none of the references teach an intended use of sterilization conditioning in a retort process. The two references that disclose closures and the structure for closures and containers, mainly, Zumbuhl and Gutmann are not remotely concerned with the submission of the closure and container to sterilization. Wetten et al teaches a gasket material which is useful for sealing food and liquid containers. However, nowhere does Wetten et al teach or remotely suggest the idea of taking the gasket of Wetten et al and combine it with either Gutmann or Zumbuhl to teach the unique combination of a liner in a closure in abutting relation with a seal covering an opening in a neck of a container which is susceptible to changes in temperature and pressure. In fact, the Examiner is piecing together the teachings of three prior art references in alleging that the instant invention, as now claimed, is obvious and this is improper as a number of cases have clearly held. See *In re Fritch*, 972 F2d 1260, 23 USPQ 1780, 1784 (Fed.Cir. 1992). Applicants submit that there must be some teaching, suggestion, or incentive to support the combination and such suggestions or incentives are not supported by the combination used by the Examiner in rejecting the instant invention, as now claimed. Thus, Applicants respectfully request that the Examiner withdraw this rejection.

2. The Examiner has rejected claims 4 and 31 under 35 §103(a) as being unpatentable over Zumbuhl in combination with Wetten et al, Gutmann and Carr et al. Applicants respectfully traverse the Examiner on this ground of rejection.

Claims 4 and 31 are dependent claims of independent claims 26 and 28, respectively, and specifically include the limitation of the inclusion of a bonding material between the liner and the top interior surface of the closure. The Carr et al reference is

included as allegedly teaching a sealing layer between a liner and an interior cap surface. In arguendo, even if Carr et al does teach a sealing layer between the liner and the interior cap surface, Carr et al does not correct the deficiencies in the teaching of the independent claims 26 and 28, as discussed previously. In other words, Carr et al does not teach the very specific structure of the closure and the container and the unique relationship between the unique liner of the instant claimed invention and the seal over the opening in the neck of a container. Thus, Applicants urge that the addition of Carr et al to Zumbuhl, Gutmann and Wetten et al in regards to claims 4 and 31, do not teach nor remotely suggest the instant claimed invention. Therefore, Applicants respectfully request that the Examiner withdraw this rejection.

3. The Examiner has rejected claims 9 and 36 under USC §103(a) as being unpatentable over Zumbuhl, Gutmann and Wetten et al in combination with Kelly. Applicants respectfully traverse the Examiner on this ground of rejection.

Claims 9 and 36 are dependent claims of claims 26 and 28, respectively, and include the limitation that the closure includes at least one slit extending a predetermined length from the top to the skirt. The Kelly reference is cited as teaching a closure that has a plurality of vents disposed therein. As taught in the reference, the vents are at a transition between the top member of the closure and the downwardly extending skirt. However, and more importantly, Kelly does not teach nor remotely suggest the unique combination of the very specific liner of the instant invention and its relationship with the seal over the opening of a neck of a container. Thus, Kelly does not teach nor remotely suggest correcting the deficiencies of the Zumbuhl, Gutmann and Wetten et al references as previously discussed. Therefore, Applicants urge that

Kelly in combination with Zumbuhl, Gutmann and Wetten et al does not teach nor remotely suggest the instant invention in accordance with claims 9 and 36 and respectfully requests that the Examiner withdraw this rejection.

4. Claims 11-18, 20, 24, 25, and 27 are rejected under 35 USC §103(a) as being unpatentable over Carr et al in view of Wetten et al. Applicants respectfully traverse the Examiner on this ground of rejection.

Claim 27 is an independent claim with claims 11-18, 20, 24 and 25 being depending claims therefrom. Independent claim 27 is directed to a closure in combination with a container wherein the container is provided with a neck with a lip defining an opening therein and a seal covering the opening. The closure is provided with an interior surface and a skirt depending from the top and includes a skirt interior surface. At least one thread is affixed to the skirt interior surface for engagement with the neck of the container. Moreover, the thread is defined as having an upper edge wherein an angle θ is defined between the upper edge and a horizontal plane and the angle θ is less than about 45°. A liner is disposed to fit within the closure and abuts the top interior surface. The liner has a resting thickness at ambient temperature and pressure conditions and is made from a material capable of being compressed to a thickness less than the resting thickness and capable of recovering to a recovery thickness sufficient to allow the liner to maintain a positive pressure against the closure and against the seal when the closure is affixed to the container. As noted previously, the instant invention is directed to a closure for a container which is subjected to sterilization conditions using a retort process and this is accomplished by providing means for maintaining an effective pressure against the seal over the opening into the

neck of the container to prevent seal separation or leakage as the sealed container is subjected to the temperature and pressure deviations of the retort process. This is accomplished by the unique relationship of a resilient liner, as claimed, which abuts the top surface of the closure and has a resting ambient temperature and pressure conditions and is made from a material capable of being compressed to a thickness less than the resting thickness and recovering to a thickness sufficient to maintain an effective pressure between the closure and the seal affixed over the opening to the container.

Carr et al teaches a tamper evident closure and is specifically directed to a tamper evident closure for use in connection with a container, including a threaded neck portion and an annular collar portion below the threaded neck portion. The sealing of the container is a two-ply disc comprised of a cardboard disc 62 and a metal or foil disc 64. Thus, Carr et al does not recognize or is remotely related to the unique sealing structure of the instant invention, as now claimed, which includes a very specific liner which is capable of being compressed to a thickness less than a resting thickness at ambient temperature and pressure and is capable of recovering to a recovery thickness sufficient to allow the liner to maintain a positive pressure against a closure and against a seal over the opening of the container. That is, Carr et al is not remotely concerned with a closure and a container which is to be subjected to sterilization in a retort process.

Wetten et al teaches a gasket made from polyolefin polymers which may be useful for sealing food and liquid containers. However, nowhere does Wetten et al teach or remotely suggest the claimed closure and container structure sealing means

and particularly the relationship between the specific claimed liner of the instant invention in association with a seal over an opening into a container. Merely placing a gasket of Wetten et al in the Carr et al closure and container does not teach or suggest the instant invention. Thus, Applicants urge that merely knowing that a gasket may be made from polyolefin polymers does not in any way suggest the unique relationship of liner and seal that is claimed in the instant application. Therefore, Applicants respectfully request that the Examiner withdraw this rejection.

5. Claim 19 is rejected under 35 USC §103(a) as being unpatentable over Carr et al in view of Wetten et al and further in view of Zumbuhl. Applicants respectfully traverse the Examiner on this ground of rejection.

Claim 19 is a dependent claim of claim 27 through other dependent claims 17 and 18. Thus, claim 19 includes all of the limitations of claim 27 and dependent claims 17 and 18.

The Zumbuhl reference is added to Carr et al and Wetten et al as applied to independent claim 27 and dependent claims 17 and 18 as allegedly teaching a tamper evident band having a plurality of resilient fingers thereon. However, Applicants submit, as discussed previously, Zumbuhl does not correct the deficiencies of Carr et al in combination with Wetten et al in teaching independent claim 27. Thus, even if Zumbuhl does teach a tamper evident band having a plurality of resilient fingers, as alleged by the Examiner, such combination with Carr et al and Wetten et al does not teach nor remotely suggest the instant invention. Therefore, Applicants respectfully request that the Examiner withdraw this combination.

6. The Examiner has rejected claim 21 under 35 §103(a) as being unpatentable over Carr et al and Wetten et al in combination with Kelly. Applicants respectfully traverse the Examiner on this ground of rejection.

Claim 21 is a dependent claim of claim 27 including the limitation that the closure includes at least one slit extending a predetermined length from the top to the skirt. The Kelly reference is cited as allegedly teaching a closure skirt with at least one slit therein. However, as pointed out previously, Kelly does not correct the deficiencies in the primary references and particularly the primary reference Carr et al in view of Wetten et al. Merely teaching that a closure skirt may have at least one slit therein in combination with Carr et al and Wetten et al does not teach nor remotely suggest dependent claim 21 since Carr et al adds nothing to the previous discussion of the lack of teachings of Carr et al and Wetten et al in teaching independent claim 27. Thus, Applicants respectfully request that the Examiner withdraw this rejection of claim 21.

The Examiner has cited Pullman et al as being of interest but not relied upon. Applicants have reviewed this reference and have determined that this reference adds nothing to the previous discussions of the pertinent references cited by the Examiner. Therefore, further discussion of this reference does not appear to be warranted.

Applicants urge that the instant application is now in condition for allowance. However, if the Examiner believes there are other unresolved issues in this case, Applicants' attorney would appreciate a call at (502) 412-8222 to discuss such remaining issues.

Respectfully submitted,



Charles G. Lamb
MIDDLETON REUTLINGER
2500 Brown & Williamson Tower
Louisville, KY 40202
(502) 584-1135
Reg. No. 24,783